

## RESPONSE TO DETAILED ACTION

Response to DETAILED ACTION, Paragraph 2:

The corrected title of the specification is shown on page 2 of this Amendment.

Response to DETAILED ACTION, Paragraph 3:

The "of" after "said" has been removed by the strike through of claims 12, and 20. "port" has been added on line 45 of claim 25.

Response to DETAILED ACTION, Paragraph 5:

Applicant has attached Figures 5 through 8 of Naoi et al. with additional reference characters added by applicant. These reference characters are used to clarify applicants description.

### General Description Of Naoi et al.

Referring to Figures 5-8, frame **102** of Naoi (i.e. the body of applicants claims) includes the following elements (see column 6, lines 30 to 43):

- (a) partition plate **106** which includes the following elements:
  - (i) surface **A** on one side of the partition plate, with a mirror image of surface **A** on the other side of the partition plate (surface **A** is defined by applicant for clarity);
  - (ii) *"a central portion **108** including an upwardly convex upper portion leaving a space **110** in the upper portion of frame **102**";*
  - (iii) *"a downwardly converging lower end in a lower portion of the frame **102**, leaving space **112** between the lower end of the partition plate **106** and frame **102**",* (i.e. the partition plate **106** extends to the bottom of surface **A**, that is to space **112**;
  - (iv) *"a plurality of vertical rows of protrusions **122** on each side of its surfaces, defining passages **123** between the protrusions **122** in a horizontal direction"* ( in Figure 5 applicant has defined the surfaces as surface **B** for clarity), Figure 6 and 8 show that the top of protrusions lie in the same plane as surface **A**;
  - (v) ridge **130**;
  - (vi) surface **C** defined by applicant for clarity.
- (b) inlet port **116**.
- (c) outlet port **120**.

Applicants claims 12 and 20 include:

*"a body having a partition wall that includes a first surface on one side of said partition wall and a second surface on the other side of said partition wall, with said partition wall fixed to the inner periphery of said body, said partition wall dividing said body into a first filter well on the first surface side of said partition wall, and a second filter well on the second surface side of said partition wall,"*

In Naoi et al. the body is frame **102** with the first side of the partition wall including surface **A** and surface **B** and protrusions **122** attached to the body; with the first filter well defined as the space bounded by surface **A**, and ridge **130** (i.e. the bottom of the first filter well lies in the same plane as surface **A**, and in the same plane as the tops of protrusions **122**); with the second filter well including the corresponding features on the opposite side of the partition wall.

Column 6, line 26 states: *"The frame **102** has an integral partition plate **106** which divides the interior of the housing **100** into two chambers which are also defined by frame **102** and lids **104a**, **104b**."*

Applicants claims 12 and 20 further include:

*"a first chamber located between said first surface of said partition wall and said first surface of said first filtration media,  
a second chamber located between said second surface of said partition wall and said first surface of said second filtration media"*

In Naoi et al. the equivalent first chamber is the space between surface **B** of partition plate **106** and surface **A** of partition plate **106**, including the spaces between protrusions **122**, with the second chamber being the corresponding space on the back side of the partition plate.

Applicants claims 12 and 20 further include:

*"a cross port located on said body entirely outside of said first filter well and entirely outside of said second filter well,"*

In Naoi et al. the cross port **112** is located within the first filter well defined by surface **A** and ridge **130**. As shown in Figure 5 ridge **130** dips down at the bottom to include cross port **112**. The cross port **112** is also located within the second filter well on the other side of the partition plate.

#### **Rejection of Claims 12-16, 18, 20, 22-24 With Respect To The Embodiment of Figures 5 and 6 of Naoi et al.**

The abstract of Naoi et al. states:

*"The second filter element has an outer edge fixed directly to the partition plate in a liquidtight manner in **surrounding relation to the first filter element**."*

Column 2, line 20 of Naoi et al. states:

*"Still another object of the present invention is to provide a liquid filtering device including a first filter element which is relatively coarse and a second filter element which has a relatively large filtration resistance and is disposed in **surrounding relation to the first filter element**, the second filter element being*

*mounted on a partition plate in a liquidtight manner to prevent the first and second filter elements from being separated from each other and also prevent the first filter element from being peeled off the partition plate."*

Column 2, line 46 of Naoi et al. states:

*"said second filter element having an outer peripheral edge fixed directly to said partition plate in a liquidtight manner **in surrounding relation to said first filter element.**"*

Column 2, line 55 of Naoi et al. states:

*"said partition plate being disposed in said frame, said first and second filter elements **being successively superposed on said partition plate and pressed against said partition plate by said lids.**"*

Column 6, line 48 of Naoi et al. states:

*"First filter elements **126a, 126b** are disposed one on each side of the partition plate 106 in covering relation to the partition plate 106 and the space 110. Second filter elements **128a, 128b** are placed over the respective first filter elements **126a, 126b**. The second filter elements **128a, 128b** have ends held against and engaging ridge 130 projecting from a peripheral edge of the frame 102. The lids **104a, 104b** are disposed in the frame 102 in superposed relation to the second filter elements **128a, 128b**, respectively, thus closing the chambers in the frame 102 completely in a liquidtight manner."*

Column 6, line 64 of Naoi et al. states:

*"More specifically, when blood is introduced into the liquid inlet port 116, the blood first enters the space and then flows therefrom onto the upwardly convex central portion 108 of partition plate 106 by which the blood is divided into horizontally opposite areas in the frame 102. The blood as it flows downwardly is then **directed vertically by protrusions 122 and horizontally by passages 123.**"*

Column 7, line 4 of Naoi et al. states:

*"As shown in FIG. 6, the first filter elements **126a, 126b** are sufficiently pressed into the passages 123 and disposed in vertical gaps between the rows of the passages 123."*

Column 8, line 22 of Naoi et al. states (i.e. claim 1):

*"said second filter element having an outer peripheral edge fixed directly to said partition plate in a liquidtight manner **in surrounding relation to said first filter element.**"*

From the above eight quotes the first filter elements **126a, 126b** cover both the partition plate **106** and the space **110**, which means that the outer periphery of the upstream surface of first filter element **126a** presses against surface **A**. The only part of first filter element **126a** that is disposed below surface **A** is the portion of the filter element that is "sufficiently pressed into the passages **123** and disposed in vertical gaps between the rows of the passages **123**" (column 7, line 5). However, first filter element **126a** is only partially pressed into passages **123** and disposed in vertical gaps between the rows of the passages **123**, because blood flows through these passages, and blood flow would be prevented if the passages were filled with first filter element **126a**. Furthermore, Figure 6 shows the outer periphery of first filter element **126a** pressing against surface **A** (surface **A** is shown in Figure 5). Figure 6 also shows the upstream surface of first filter element being substantially flat except for the small portions that are pressed into passages **123**. Applicant has added a copy of Figure 5 (WITH PROJECTION LINES).

Projection line **P1** shows how the lid fits into the frame **102**, projection line **P2** shows how second filter element **128a** fits into the filter well, and projection line **P3** shows how first filter element **126a** fits into the filter well. Figure 5 (**WITH PROJECTION LINES**) further includes the height and width dimensions of first filter element **126a** and second filter element **128a** (the measured dimensions are included in the figure). Figure 5 clearly shows that the width and the height of first filter element **126a** to be less than the width and the height of the second filter element **128a**, and the quote starting on column 6, line 48 states: "The second filter elements **128a**, **128b** have ends held against and engaging ridge **130** projecting from a peripheral edge of the frame **102**." Therefore the side edges of first filter element **126a** do not engage ridge **130**, therefore it is not possible for the **entire outer edge** of first filter element **126a** to have a compression fit with ridge **130** as is claimed in applicants currently amended claim 12. Also the first, second, third, and eighth quotes above state that the second filter element is in a **surrounding relation to the first filter element**.

Examiner indicated in a telephone conference that the outer edge of first filter element **126a** is sealed to side wall **D** (shown in Figure 5). However this is not possible for the following reasons explained below:

(a) Side wall **D** defines the side wall of the first and second chambers, not the side wall of the first and second filter wells. The side wall of the filter well is ridge **130**.

(b) Figure 6 shows the top of the outer periphery of first filter element **126a** pressing against surface **A** of the first filter well, thereby covering surface **A** and space **110**. Figure 6 also shows the upstream surface of first filter element **126a** as planar except for the portions that are partially pressed into passages **123** (column 7, line 4). It is impossible for a planar surface to both cover surface **A** and space **110**, and also be located below surface **A**. Furthermore the specification states (column 6, line 48) "**First filter elements 126a, 126b are disposed one on each side of the partition plate 106 in covering relation to the partition plate 106 and the space 110.**" The specification further states (column 6, line 33) "*The partition plate 106 also has a downwardly converging lower end in a lower portion of the frame 102, leaving space 112 between the lower end of the partition plate 106 and frame 102.*" Therefore, since the partition plate **106** extends to the top of space **112** (i.e. the cross port), and because the first filter elements are disposed one on each side of the partition plate **106** in covering relation to the partition plate **106** and the space **110**, the upstream surface of the first filter elements can not be located below surface **A**.

(c) Examiner relies on protrusions **Pa** and **Pb** shown in Figure 6 and Figure 8 (**Pa** and **Pb** are defined by applicant for clarity) to show a compression seal between the outer edge of first filter element **126a** and protrusion **Pa**. However these protrusions are not shown in Figures 5 or 7, nor are they supported anywhere in the specification. These protrusions are clearly a mistake by the draftsman that created these figures. Examiner indicated in a telephone conference that the protrusions are the bottom portion of side wall **D**, most clearly shown in Figure 5. However this is impossible since Figure 6 also shows the top of the outer periphery of first filter element **126a** pressing against surface **A** (as it should

according to the specification) of the first filter well, and the upstream surface of first filter element **126a** as planar. The specification supports applicants interpretation that the outer periphery of the upstream side of first filter element **126a** presses against surface **A**. Furthermore, Figures 6 and 8 show that the top of protrusions **122** lie in the same plane as surface **A**, and Figure 5 shows that surface **A** is planar all the way around.

(d) Furthermore because the frame **102** is not round but rectangular with its width smaller than its height as shown in Figure 5, the cross-sections shown in Figures 6 and 8 only represent a slice through the vertical centerline of the device, not a slice through a horizontal portion of the device. In a telephone conference on 12/20/06, examiner indicated that surface **E** (defined by applicant in Figures 5 and 7 of Naoi) could be protrusion **Pa** or **Pb**. However surface **E** is located at the bottom of the cross port (i.e. space **112**). If the filter were to go down to surface **E** then the cross port would be blocked off, and the Naoi device would not work. The only place that protrusions **Pa**, **Pb** could exist would be to protrude from surface **A**, and this is clearly not shown in Figures 5 and 7, or is this argument supported any place in the specification.

(e) The only horizontal surfaces shown in Figure 5 near the bottom of frame **102** are the bottom of side wall **D** and surface **E** at the bottom of space **112**. As explained above, neither of these surfaces can be protrusion **Pa** or **Pb**. Protrusions **Pa**, **Pb** shown in Figures 6,8 are clearly a mistake, and are not supported by the specification.

The second filter element **128a** of Figure 5 and 6, uses a compression fit between its outer edge and ridge **130**. However, the compression fit does not go around the **entire outer edge of second filter element 128a** because ridge **130** dips down at the bottom to create space **112** (i.e. the cross port) and the bottom of the second filter element is flat and does not cover the space **112** (as shown in Figure 6). If the bottom of the second filter element did cover the cross port there would not be a cross port. Furthermore the **shape of the outer edge of both the first and second filter elements is not the same as the shape of the side wall of the filter well (i.e. ridge 130) because ridge 130 includes a dip at the bottom to create space 112, and both the first and second filter elements are flat at the bottom.**

### **Summary of the Arguments Regarding the Embodiment of Figures 5 and 6**

1) Applicants amended claims 12 and 20 state:

*"with the shape of the outer edge of said first filtration media being the same as the shape of the side wall of said first filter well, thereby providing a means to seal said first filtration media to said first filter well with a compression fit between the **entire** outer edge of said first filtration media and the side wall of said first filter well,"*

*"with the shape of the outer edge of said second filtration media being the same as the shape of the side wall of said second filter well, thereby providing a means to seal said second filtration media to said second filter well with a compression fit*

*between the **entire** outer edge of said second filtration media and the side wall of said second filter well,”*

As explained above, none of the filter elements of Naoi et al have the shape of the outer edge being the same as the shape of the side wall of the filter well, thereby providing a means to seal the filtration media to the filter well with a compression fit between the **entire** outer edge of the filtration media and the side wall of the filter well.

2) Applicants amended claims 12 and 20 state:

*“a cross port located on said body entirely outside of said first filter well and entirely outside of said second filter well,”*

The cross port of Naoi et al is located within the filter wells as explained above.

3) Applicants amended claim 18 states:

*“said first filtration media includes one or more filter elements, and wherein at least one filter element of said first filtration media is sealed to the first filter well with a compression fit between the **entire** outer edge of said at least one filter element of said first filtration media and the side wall of the first filter well, and wherein said second filtration media includes one or more filter elements, and wherein at least one filter element of said second filtration media is sealed to the second filter well with a compression fit between the **entire** outer edge of said at least one filter element of said second filtration media and the side wall of the second filter well”*

As explained above, none of the filter elements of Naoi et al are sealed to the filter well with a compression fit between the **entire** outer edge of the filter element and the side wall of the filter well.

As explained above the embodiment shown in Figures 5 and 6 of Naoi et al.

(a) Does not provide a means to seal either first filter element **126a** or second filter element **128a** with a compression fit between the **entire** outer edge of either filter element and the side wall of the filter well. The same argument applies to first and second filter elements **126b** and **128b**. The second filter element does use a compression fit between its outer edge and ridge **130**, but the compression fit does not go around the entire edge because of the dip at the bottom of ridge **130**. Naoi et al does not seal either the first or second filter elements with a compression fit around the entire outer edge as claimed in applicants claim 18.

(b) Neither the shape of the first filter element **126a** or second filter element **128a** is the same as the shape of the side wall of the filter well (i.e. ridge **130**), because of the dip at the bottom of ridge **130**, with the bottom of the filter elements being flat.

(c) Also the cross port of Naoi et al. is located within, not outside of the first and second filter wells, because the side wall of the filter well is ridge **130**, which includes the bottom of space **112**.

**Rejection of Claims 12-16, 18, 20, 22-24 With Respect To The Embodiment of  
Figures 7 and 8 of Naoi et al.**

The above arguments that apply to Figures 5 and 6 of Naoi et al. also apply to the embodiment of Figures 7 and 8 of Naoi et al.

The following quotes from Naoi et al. refer to Figures 7 and 8:

Column 7, line 17 states:

*"Those components of the liquid filtering device shown in FIGS. 7 and 8 which are identical to those of FIGS. 4 through 6 are denoted by identical reference numerals, and will not be described in detail."*

The identical components are the frame **102**, including all of its component parts; first filter element **126a**; second filter element **128a**; and lid **104a**.

Column 7, line 24 of Naoi et al. states:

*"As shown in FIGS. 7 and 8, a pair of mesh screens **150** is disposed in frame **102** at positions closest to the partition plate **106**. More specifically, the mesh screens **150** are positioned **one on each side of the partition plate 106**, and the first filter elements **126a, 126b**, the second filter elements **128a, 128b**, and the lids **104a, 104b** are successively disposed over the mesh screens **150**. The mesh screens **150** **allow the second filter elements 128a, 128b, to be bonded easily to frame 102 by a high-frequency or ultrasonic fusing process**. Blood to be filtered can easily enter the first filter elements **126a, 126b** and the second filter elements **128a, 128b** since the blood flows downwardly in different directions through the mesh openings of the mesh screens **150**."*

Column 7, line 39 of Naoi et al. states (this quote applies to all embodiments of Naoi et al.):

*"With the present invention, as described above, since the second filter elements are bonded to the partition plate, blood introduced into the liquid filtering device from the liquid inlet port is always guided to enter the second filter elements without any short pass toward the filtrate outlet port of the device. As a consequence, leukocytes are effectively removed from the blood to produce desired concentrated red cells. Stated otherwise, inasmuch as the blood flows successively through the first filter elements and the second filter elements, unwanted components are effectively filtered out from the blood by the filter elements, and the filter elements are less subjected to clogging. **Because the second filter elements are fused or bonded to the partition plate**, the first filter elements are prevented from being peeled off by the second filter elements."*

From the above quotes it can be seen that mesh screens **150** are not filter elements. Mesh screens **150** provide support and an additional underdrain for first filter elements **126a, 126b**. and also provide a means to bond the outer periphery of the second filter elements **128a, 128b** to surface A of partition plate **106** by melting the outer periphery of the screens **150** using a high-frequency or ultrasonic fusing process. All embodiments of Naoi et al. use only a first and second filter element in series.

Applicant has added a copy of Figure 7 (**WITH PROJECTION LINES**). Projection line P1 shows how the lid fits into the frame 102, projection line P2 shows how second filter element 128a and the mesh screen 150 fit into the filter well, and projection line P3 shows how first filter element 126a fits between the second filter element 128a and the mesh screen 150. Figure 7 (**WITH PROJECTION LINES**) further includes the height and width dimensions of mesh screen 150, the first filter element 126a and the second filter element 128a (the measured dimensions are included in the figure). Figure 7 clearly shows that the width and the height of first filter element 126a to be less than the width and the height of the second filter element 128a, and of mesh screen 150, and that the width and height of the second filter element is the same as the width and height of the mesh screen. Also the dimensions of the first and second filter elements are the same in both Figures 5 and 7, and if Figure 5 is superposed over Figure 7, against a light source (such as a window or a light) the two figures are identical except that Figure 7 includes the mesh screen.

The specification states (column 6, line 33) "*The partition plate 106 also has a downwardly converging lower end in a lower portion of the frame 102, leaving space 112 between the lower end of the partition plate 106 and frame 102.*" Therefore, since the partition plate 106 extends to the space 112 (i.e. the cross port), and because the mesh screens 150 are **positioned one on each side of the partition plate 106**, the upstream surface of the mesh screens can not be located below surface A.

Figure 8 shows the top of the outer periphery of mesh screens 150 pressing against surface A of the first filter well, thereby covering surface A and space 110. Figure 8 also shows the upstream surface of mesh screens 150 as planar. It is impossible for a planar surface to both cover surface A and space 110, and also be located below surface A.

Examiner indicated in a telephone conference that Figure 7 shows the second mesh screen 150 located below surface A on the back side of the partition plate 106 with its edges sealed to side wall D. However this is not possible for the following reasons explained above:

(a) Side wall D defines the side wall of the first and second chambers, not the side wall of the first and second filter wells. The side wall of the filter well is ridge 130. Examiner indicated in a telephone conference that Figure 7 shows the second mesh screen 150 sealed to side wall D. However, upon close inspection of Figure 7, one can see that the first mesh screen 150 (i.e. the one in the exploded portion of Figure 7) is the same size as second filter element 128a and that both are larger in both the vertical and horizontal directions than the area inside of side wall D. Furthermore, Figure 7 is an isometric view that does not show hidden lines, therefore only the portions of the back mesh screen 150 that show through space 110 are visible.

(b) Figure 8 shows the top of the outer periphery of screens 150 pressing against surface A of the first filter well, thereby covering surface A and space 110. Figure 8 also shows the upstream surface of screens 150 as planar. It is impossible for a planar surface to both cover surface A and space 110, and also be located below surface A. Furthermore the specification states (column 7, line 24) "***the mesh screens 150 are positioned one on each side of the partition plate 106.***" The



specification further states (column 6, line 33) *"The partition plate 106 also has a downwardly converging lower end in a lower portion of the frame 102, leaving space 112 between the lower end of the partition plate 106 and frame 102."* Therefore, since the partition plate 106 extends to the space 112 (i.e. the cross port), and because the screens are disposed one on each side of the partition plate 106, the upstream surface of the first filter elements can not be located below surface A. Furthermore, the specification states (column 7, line 31) *"The mesh screens 150 allow the second filter elements 128a, 128b, to be bonded easily to frame 102 by a high-frequency or ultrasonic fusing process."* In order to bond the outer periphery of the second filter elements to surface A of the partition plate using high-frequency or ultrasonic fusing, the outer periphery of the mesh screens must have the same dimensions as the second filter elements (as shown in Figure 7), so that an ultrasonic welding horn would press against both the outer periphery's of the second filter element and the mesh screen, thereby pressing them against surface A of partition plate 106, so that when the ultrasonic energy is applied, the outer periphery of the mesh screen will melt, thereby fusing the outer periphery of the upstream surface of the second filter element to surface A of the partition plate. A similar process would be used with high-frequency fusing. If the outer edge of the mesh screen is disposed inside of side wall D of partition plate 106 as suggested by the examiner, this fusing process would not be possible, and the primary reason for adding the mesh screens is to make this fusing process possible.

(c) Examiner relies on protrusions Pa and Pb shown in Figure 8 (Pa and Pb are defined by applicant for clarity) to show a compression seal between the outer edge of mesh screens 150 and protrusion Pa. However these protrusions are not shown in Figures 5 or 7, nor they supported in any place in the specification. These protrusions are clearly a mistake by the draftsman that created these figures. Examiner indicated in a telephone conference that the protrusions are the bottom portion of side wall D, most clearly shown in Figure 5. However this is impossible since Figure 8 also shows the top of the outer periphery of mesh screens 150 pressing against surface A of the first filter well, and the upstream surface of screens 150 are planar. The specification supports applicants interpretation that the outer periphery of the upstream side of mesh screens 150 presses against surface A. Furthermore, Figures 8 show that the top of protrusions 122 lie in the same plane as surface A, and Figure 5 shows that surface A is planar all the way around. In a telephone conference on 12/20/06, examiner indicated that surface E (defined by applicant in Figures 5 and 7 of Naoi) could be protrusion Pa or Pb. However surface E is located at the bottom of the cross port (i.e. space 112). If the filter were to go down to surface E then the cross port would be blocked off, and the Naoi device would not work. The only place that protrusions Pa, Pb could exist would be to protrude from surface A, and this is clearly not shown in Figures 5 and 7, or is this argument supported any place in the specification.

(d) As shown in Figure 7 (WITH PROJECTION LINES), the width and height of the mesh screen and the second filter element are identical, and the width and height of the first filter element is smaller. The reason Naoi et al added the mesh screen is to bond the outer periphery of the second filter element to surface A of

the partition plate using ultrasonic or high-frequency welding. In order to do this the entire outer edge of the second filter element as shown in Figure 7 must be offset inward from the outer edge of both the second filter element and the mesh screen. Therefore Figure 8 contains the following errors:

(i) Protrusions **Pa, Pb** do not exist in Figure 5, therefore they cannot exist in Figure 8, since the same frame **102** is used in both Figures 5 and 8.

(ii) The bottom of mesh screen **150** must extend to the top of space **112** (as shown in Figure 7), thereby eliminating protrusions **Pa, Pb**. If the bottom of the mesh screen does not extend to the top of space **112**, then it is impossible to bond the bottom outer periphery of the second filter element to the bottom of the partition plate using ultrasonic or high frequency welding, as stated in the specification, and this the primary reason Naoi et al added the mesh screens **150**.

(iii) The top of the first filter element **126a** and **126b** should **not** extend to the top of ridge **130**, but should be offset downward from the top of ridge **130** (as shown in Figure 7). If the top of the first filter element extends to the top off ridge **130** as shown in Figure 8, then it is impossible to bond the top outer periphery of the second filter element to the top of the partition plate using ultrasonic or high frequency welding, as stated in the specification. Naoi et al teaches bonding the **second filter element to the partition plate** using ultrasonic or high frequency fusing, not the first filter element.

Because Figure 6 shows the same frame **102** as Figure 8, protrusions **Pa, Pb** do not belong in Figure 6 either.

(e) Furthermore because the frame **102** is not round but rectangular with its width smaller than its height as shown in Figure 5, the cross-sections shown in Figures 6 and 8 only represent a slice through the vertical centerline of the device, not a slice through a horizontal portion of the device.

The second filter element **128a** of Figure 7 and 8, uses a compression fit between its outer edge and ridge **130**. However, the compression fit does not go around the **entire outer edge of second filter element 128a** because ridge **130** dips down at the bottom to create space **112** (i.e. the cross port), and the bottom of the second filter element does not cover the space **112** (as shown in Figure 8).

The second filter element **128a** of Figure 7 and 8, is bonded to the partition plate using a ultrasonic or high-frequency fusing process that melts the outer periphery of the mesh screen thereby fusing the outer periphery of the second filter element to surface **A** of the partition plate. The second filter element also uses a compression fit between its outer edge and ridge **130**. However, the compression fit does not go around the **entire outer edge of second filter element 128a** because ridge **130** dips down at the bottom to create space **112** (i.e. the cross port) and the bottom of the second filter element is flat and does not cover the space **112** (as shown in Figure 6). If the bottom of the second

filter element did cover the cross port there would not be a cross port. Furthermore the shape of the outer edge of both the first and second filter elements and the mesh screen is not the same as the shape of the side wall of the filter well (i.e. ridge 130) because ridge 130 includes a dip at the bottom to create space 112, and both the first and second filter elements and the mesh screen are flat at the bottom.

### Summary of the Arguments Regarding the Embodiment of Figures 7 and 8

1) Applicants claims 12 and 20 state:

*"with the shape of the outer edge of said first filtration media being the same as the shape of the side wall of said first filter well, thereby providing a means to seal said first filtration media to said first filter well with a compression fit between the entire outer edge of said first filtration media and the side wall of said first filter well,"*

*"with the shape of the outer edge of said second filtration media being the same as the shape of the side wall of said second filter well, thereby providing a means to seal said second filtration media to said second filter well with a compression fit between the entire outer edge of said second filtration media and the side wall of said second filter well,"*

As explained above, none of the filter elements of Naoi et al have the shape of the outer edge being the same as the shape of the side wall of the filter well, thereby providing a means to seal the filtration media to the filter well with a compression fit between the entire outer edge of the filtration media and the side wall of the filter well.

2) Applicants claim 12 and 20 state:

*"a cross port located on said body entirely outside of said first filter well and entirely outside of said second filter well,"*

The cross port of Naoi et al is located within the filter wells as explained above.

3) Applicants amended claim 18 states:

*"said first filtration media includes one or more filter elements, and wherein at least one filter element of said first filtration media is sealed to the first filter well with a compression fit between the entire outer edge of said at least one filter element of said first filtration media and the side wall of the first filter well, and wherein said second filtration media includes one or more filter elements, and wherein at least one filter element of said second filtration media is sealed to the second filter well with a compression fit between the entire outer edge of said at least one filter element of said second filtration media and the side wall of the second filter well"*

As explained above, none of the filter elements of Naoi et al are sealed to the filter well with a compression fit between the entire outer edge of the filter element and the side wall of the filter well.

4) As explained above the embodiment shown in Figures 7 and 8 of Naoi et al. does not provide a means to seal either the screens **150**, the first filter element **126a** or second filter element **128a** with a compression fit between the **entire** outer edge of any of these elements and the side wall of the filter well. The same argument applies to first and second filter elements **126b** and **128b**. Also the cross port of Naoi et al. is located within, not outside of the first and second filter wells. Furthermore, screens **150** are not filter elements, they are filter support screens used to support the filter elements, and to provide a filter underdrain, and to provide a means to seal the second filter element to the partition plate using a high-frequency or ultrasonic fusing process. The screens are not used to remove components from the blood being filtered.

For all of the above reasons, applicant believes that amended independent claims 12 and 20, and amended dependent claim 18, and new independent claims 26, 27, and 29 are proper, definite and define novel structures that are also unobvious. Therefore dependent claims 13, 14, 15, 16, 19, 21, 22, 23, 24, and 28 that incorporate all of the subject matter of their respective independent claims and add additional subject matter and further limit their respective independent claim should now be patentable over Naoi et al. Examiner has based his objections with regard to Naoi et al, based on protrusions **Pa, Pb**. Applicant has shown that protrusions **Pa, Pb** do not belong in either Figures 6 or 8. Unless the examiner can show exactly where in the specification Naoi et al teaches that the first filter element **126a, 126b** are sealed with a compression fit between the outer edge of these filter elements and a side wall, and exactly where in Figure 5 protrusions **Pa, Pb** exist, examiner should allow the claims as now written.

## CONCLUSION

For all of the above reasons, applicant submits that the specification, drawings, and the claims of this application are now in proper form, and that the claims all define patentably over the prior art. Therefore applicant submits that this application is now in condition for allowance, which action applicant respectfully solicits.

## CONDITIONAL REQUEST FOR CONSTRUCTIVE ASSISTANCE

Applicant has amended the specification and claims of this application so that they are proper, definite, and define novel structure which is also unobvious. If for any reason this application is not believed to be in full condition for allowance, applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 706.03(d) and § 707.07(j) in order that the applicant can place this application in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,



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